

ABSTRACT OF THE DISCLOSURE

SYSTEM AND METHOD OF IMPROVING FAULT-BASED MULTI-PAGE PRE-FETCHES

5

A system and method of improving fault-based multi-page pre-fetches are provided. When a request to read data 10 randomly from a file is received, a determination is made as to whether previous data has been read from memory (i.e., RAM) or from a storage device. If the data has been read from memory, an attempt is made to read the present requested data from memory. If the data is in memory it is 15 provided to the requester. If the data is not in memory, a page fault occurs. If the requested data has a range that spans more than one page, the entire range is read in by a page fault handler. If previous data has not been read from memory, it will be assumed that the present requested data 20 is not in memory. Hence, the present requested data will be loaded into memory. Loading random data that spans a range of more than one page all at once into memory inhibits the system from pre-fetching on the range due to fault-based sequential data accesses.

25